User's Guide

L197WH

Make sure to read the Important Precautions before using this product. Keep the User's Guide (CD) in an accessible place for future reference.

See the attached label on the unit and show this information to your dealer when asking for service.



Important Precautions

This unit has been engineered and manufactured to ensure your personal safety, however improper use may result in potential electrical shock or fire hazards. In order to allow the proper operation of all safeguards incorporated in this display, observe the following basic rules for its installation, use, and servicing.

On Safety

Use only the power cord supplied with the unit. In case you use another power cord, make sure that it is certified by the applicable national standards if not being provided by the supplier. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.

The power supply cord is used as the main disconnection device. Ensure that the socket-outlet is easily accessible after installation.

Operate the display only from a power source indicated in the specifications of this manual or listed on the display. If you are not sure what type of power supply you have in your home, consult with your dealer.

Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

Do not Open the Display.

- There are no user serviceable components inside.
- There are Dangerous High Voltages inside, even when the power is OFF.
- Contact your dealer if the display is not operating properly.

To Avoid Personal Injury:

- Do not place the display on a sloping shelf unless properly secured.
- Use only a stand recommended by the manufacturer.
- Do not drop an object on or apply impact to the product. Do not throw any toys or objects on the pro □duct screen.
 - It can cause injury to human, problem to product and damage the display.

To Prevent Fire or Hazards:

- Always turn the display OFF if you leave the room for more than a short period of time. Never leave the display ON when leaving the house.
- Keep children from dropping or pushing objects into the display's cabinet openings. Some internal parts carry hazardous voltages.
- Do not add accessories that have not been designed for this display.
- When the display is to be left unattended for an extended period of time, unplug it from the wall outlet.
- In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous. It can cause electric shock.

On Installation

Do not allow anything to rest upon or roll over the power cord, and do not place the display where the power cord is subject to damage.

Do not use this display near water such as near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

Displays are provided with ventilation openings in the cabinet to allow the release of heat generated during operation. If these openings are blocked, built-up heat can cause failures which may result in a fire hazard. Therefore, NEVER:

- Block the bottom ventilation slots by placing the display on a bed, sofa, rug, etc.
- Place the display in a built-in enclosure unless proper ventilation is provided.
- Cover the openings with cloth or other material.
- Place the display near or over a radiator or heat source.
- Main power breaker is the power cord and this breaking device must be located at a location where it is easy to operate.

Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, mar, or damage the Active Matrix LCD permanently.

Do not press the LCD screen with your finger for a long time as this may cause some afterimages.

Some dot defects may appear as Red, Green or Blue spots on the screen. However, this will have no impact or effect on the display performance.

If possible, use the recommended resolution to obtain the best image quality for your LCD display. If used under any mode except the recommended resolution, some scaled or processed images may appear on the screen. However, this is characteristic of the fixed-resolution LCD panel.

On Cleaning

- Unplug the display before cleaning the face of the display screen.
- Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the display screen because over-spraying may cause electrical shock.

On Repacking

 Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it in its original material.

On Disposal

- The fluorescent lamp used in this product contains a small amount of mercury.
- Do not dispose of this product with general household waste.
 Disposal of this product must be carried out in accordance to the regulations of your local authority.

Connecting the Display

Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

Unfolding the stand base

- 1. Place the monitor with its front facing downward on a soft cloth.
- 2. Hold the stand base and lift it up following the sequence as shown in the picture.



3. Pull the stand base down at the same spot shown in the picture, and the stand will be unfolded.



4. Place the monitor upright and adjust the stand base to the desired angle. Adjust the stand base's angle by holding the edges of the monitor gently with both hands.



Important

- This illustration depicts the typical connection procedure. Your monitor may differ from the one displayed in the pictures above.
- Do not touch or apply force to the monitor's screen while expanding or folding the stand base

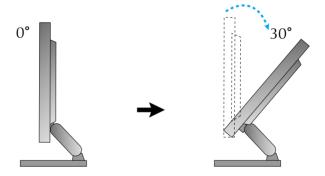
Folding the stand base

1. Face the front of the monitor dislpay. Than gently push the monitor backwards, following the sequence shown in the picture below.



Tilt range

- 1. Make sure that the angle of the panel is set for your comfort.
- Tilt Range: 0°~30

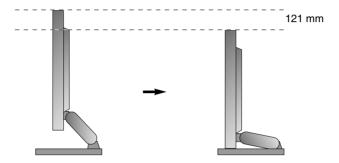


Ergonomic

It is recommended that in order to maintain an ergonomic and comfortable viewing position, the forward tilt angle of the monitor should not exceed 5 degrees

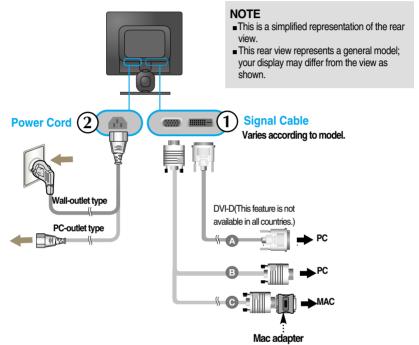
To adjust the height

■ Scope of adjusting the height: maximum 4.76 inches (121 mm)



Using the Computer

- 1. Make sure to turn off the computer and product. Connect the cable as below sketch map form ① to ②.
- Connect DVI Cable
- B Connect Dsub Cable (PC)
- Connect Dsub Cable (Mac)



For Apple Macintosh use, a separate plug adapter is needed to change the 15 pin high density (3 row) D-sub VGA connector on the supplied cable to a 15 pin 2 row connector.

2. Press (b) button on the side switch panel to turn the power on. When monitor power is turned on, the 'Self Image Setting Function' is executed automatically. (Only Analog Mode)



NOTE

'Self Image Setting Function'? This function provides the user with optimal display settings. When the user connects the monitor for the first time, this function automatically adjusts the display to optimal settings for individual input signals.

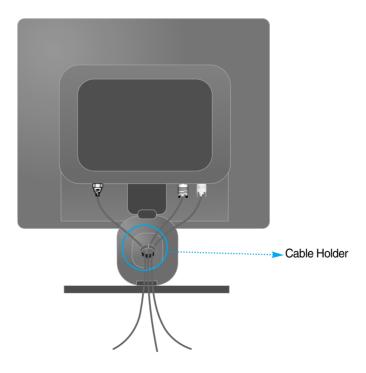
'AUTO/SET Function'? When you encounter problems such as blurry screen, blurred letters, screen flicker or tilted screen while using the device or after changing screen resolution, press the AUTO/SET function button to improve resolution.

To arrange the cables

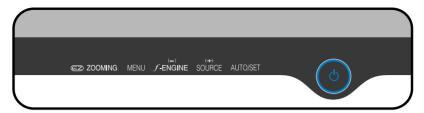
1. Insert and screw the cable holder into the hole in the back of the stand until it will not turn any more as shown in the following figure.



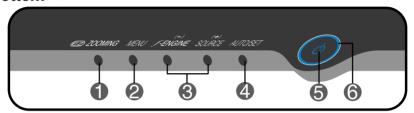
2. After connecting the cables neatly, arrange the cables to the Cable Holder as shown in the following figure.



Front Panel Controls



Bottom



Control

Function





At the current display, Use 'ez Zooming' Key, then the display resolution is transferred to the one step low resolution. Use 'ez Zooming' Key one more, the display is back to the original display.

*Only One touch of ez-zoom, you can fine the best resolution you want and it is possible to magnify the size of characters and pictures for the old not having good eye sight, housewives not dealing with computer well and children.

- The resolutions at which the EZ ZOOMING operates are as follows: For the 19 inch monitor, 1440 x 900, 1280 x 1024, 1024 x 768, 800 x 600
- The setting method can differ by O/S or video card. In this case, Please ask to the computer or the video card manufacturer.



MENU Button

Use this button to enter or exit from the On Screen Display.



OSD LOCKED/UNLOCKED

This function allows you to lock the current control settings, so that these settings are not inadvertently changed. To lock the OSD settings, press and hold the **MENU button** for several seconds. The message "**OSD LOCKED**" appears.

You can unlock the OSD settings at any time by pushing the **MENU button** for several seconds. The message **"OSD UNLOCKED"** appears.

Control Panel Functions

Control		Function		
3	- + Buttons	Use these buttons to select or adjust functions in the On Screen Display.		
	- Button (fengine)	For more information, refer to page A16.		
	FLATRON FENGINE USER NORMAL MENU Ø - • + • SET F			
	+ Button (SOURCE Hot key)	Use this button to make either D-Sub or DVI connector active. This feature is used when two computers are connected to the display. The default setting is D-Sub.		
4	AUTO/SET Button	Use this button to selection an icon in the On Screen Display.		
		AUTO IMAGE ADJUSTMENT When adjusting your display settings, always press the AUTO/SET button prior to entering the On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size (display mode).		
	PROCESSING AUTO	The best display mode is L197WH: 1440 x 900		
5	Power Button	Use this button to turn the display on or off.		
6	Power Indicator	This Indicator lights up as blue when the display is operating normally(On Mode). If the display is in Sleep Mode (Energy Saving), this indicator color will changes to amber.		

Screen Adjustment

Making adjustments to the display's image size, position and operating parameters is quick and easy with the On Screen Display Control system(OSD). A short example is given below to familiarize you with the use of the controls. The following section is an outline of the available adjustments and selections you can make by using the OSD.

NOTE

Allow the display to stabilize for at least 30 minutes before making any image adjustments.

To make adjustments in the On Screen Display, follow these steps:

$$\mathsf{MENU} \to \textbf{-} + \to \mathsf{AUTO/SET} \to \textbf{-} + \to \mathsf{MENU}$$

- Press the MENU button, then the main menu of the OSD appears.
- 2 To select each item in the OSD menu, use the or + button. When the icon you want is highlighted, press the AUTO/SET Button.
- Use the / + buttons to adjust the image to the desired level. Use the AUTO/SET button to select other sub-menu items.
- Press the MENU button once to return to the main menu to select another function. Press the MENU button twice to exit from the OSD.

The following table indicates all the On Screen Display control, adjustment, and setting menus.

Main menu	Sub-menu		Α	D	Reference
PICTURE	PICTURE BRIGHTN				To adjust the brightness, contrast and gamma of the screen
	CONTRAST				
	GAMMA				
COLOR	PRESET	sRGB			To customize the color of
COLOR		6500K			the screen
		9300K			
	RED				
	GREEN				
	BLUE				
	HORIZONTAL				To adjust the position of the
POSITION	VERTICAL				screen
	CLOCK				To improve the clarity and stability of the screen
TRACKING	PHASE				
	SHARPNESS				•
SETUP	LANGUAGE				To customize the screen
SETOI	OSD	HORIZONTAL			status for a user's operating
	POSITION	VERTICAL			environment
	WHITE BALANCE				
	POWER INDICATOR				
	4:3 IN WIDE				
	FACTORY RESET				
FLATRON	MOVIE/TEXT				To select or customize
F-ENGINE	USER				desired image settings
	NORMAL				
: Adjustable					
	A : Analog Input				

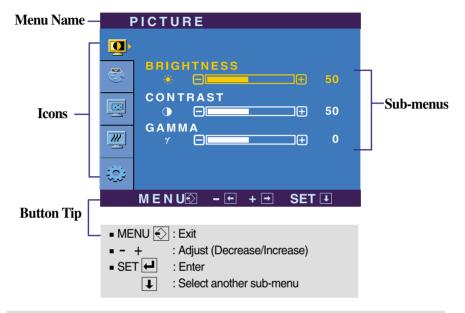
NOTE

■ The order of icons may differ depending on the model (A11~A16).

D: Digital Input

You were introduced to the procedure of selecting and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the all items shown on the Menu.

Press the MENU Button, then the main menu of the OSD appears.



NOTE

■ OSD (On Screen Display) menu languages on the monitor may differ from the manual.

Main menu Sub menu Description



PICTURE



BRIGHTNESS

CONTRAST

GAMMA

To adjust the brightness of the screen.

To adjust the contrast of the screen.

Set your own gamma value.: -50/0/50 On the monitor, high gamma values display whitish images and low gamma values display high contrast images.

MENU : ExitDecreaseH : Increase

SET : Select another sub-menu



COLOR



PRESET

RED

GREEN

BLUE

■ MENU : Exit

■ : Decrease

+ : Increase

SET : Select another sub-menu

- sRGB: Set the screen color to fit the SRGB standard color specification.
- 6500K: Slightly reddish white.
- 9300K: Slightly bluish white.

Set your own red color levels.

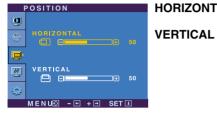
Set your own green color levels.

Set your own blue color levels.

Main menu Sub menu **Description**



POSITION



HORIZONTAL

To move image left and right.

To move image up and down.

■ MENU : Exit : Decrease : Increase

: Select another sub-menu



TRACKING



CLOCK

To minimize any vertical bars or stripes

visible on the screen background. The horizontal screen size will also

change.

PHASE To adjust the focus of the display.

This item allows you to remove any horizontal noise and clear or sharpen

the image of characters.

SHARPNESS To adjust the clearness of the screen.

: Decrease : Increase

■ MENU : Exit

: Select another sub-menu

Sub menu Main menu Description LANGUAGE To choose the language in which the control names are displayed. SETUP OSD To adjust position of the OSD window **POSITION** on the screen. WHITE **BALANCE** HORIZONTAL 9

ANALOG

1280 x 1024 60HZ

MENU② - • + • SET □

SET UP

WHITE BALANCE NO
POWER INDICATOR NO
4:3 IN WIDE WIDE
FACTORY RESET NO
ANALOG
1280 x 1024 60HZ

MENU② - ₩ + ₩ SET ₩

111

MENU : Exit
- : Adjust
+ : Adjust
SET : Select another

sub-menu

If the output of the video card is different the required specifications, the color level may deteriorate due to video signal distortion. Using this function, the signal level is adjusted to fit into the standard output level of the video card in order to provide the optimal image.

Activate this function when white and black colors are present in the screen.

POWER Use this function to set the power INDICATOR indicator on the front side of the monitor

to ON or OFF.

If you set **OFF**, it will go off.

If you set **ON** at any time, the power indicator will automatically be turned on.

4:3 IN WIDE To select the image size of the screen.





4:3: Depending on the input video signal ratio, it is automatically changed to an optimized screen ratio. (The 1280X1024 input signal is changed to 5:4 ratio and 1024X768 to 4:3.)

Resolution	Screen ratio
1280x1024	5:4
1152x864	4:3
1024x768	4:3
800x600	4:3
640x480	4:3
720x480	3:2

The input signal which the 4:3 IN WIDE does not support '4:3' is the following.

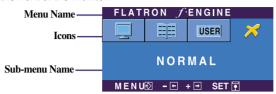
- The 19 inch monitor is 720x400,1280x768,1360x768,1440x900

FACTORY RESET Restore all factory default settings except "LANGUAGE."

Press the - button to reset immediately.

If this does not improve the screen image, restore the factory default settings. If necessary, perform the white balance function again. This function will be enabled only when the input signal is an analog signal.

■■ The OSD screen will appear when you touch the fengine (-) button on the front of the monitor.



FLATRON F-ENGINE

When you execute F-ENGINE, two tones will appear on the screen as shown. The applied screen will appear on the left side, whereas the non-applied screen will appear on the right side. Touch the SET button to use the adjusted screen.





■ - , + : Move

This feature lets you easily select the best desired image condition optimized to the environment (ambient illumination, image types etc).

Description

MOVIE: For animation images in videos or movies

TEXT: For text images (Word processing etc.)



USER

■ MENU : Exit : Decrease

MENU® - ⊞ + ⊞ SET I

■ SET : Select

: Select another sub-menu SET

: Increase

User

You can manually adjust brightness, ACE or RCM. You can save or restore the adjusted value even when using a different environment.

— (Brightness): Adjusts screen brightness.

... ACE(Adaptive Clarity Enhancer): Selects the clarity mode.

···RCM(Real Color Management): Selects the color mode.



Select the SAVE sub-menu using the SET button and save the YES value using the buttons.



NORMAL This is under normal operating conditions.

Troubleshooting

Check the following before calling for service.

No image appears

- Is the power cord of the display connected?
- Is the power on and the power indicator blue or green?
- Is the power indicator amber?
- Do you see an "OUT OF RANGE" message on the screen?
- Do you see a "CHECK SIGNAL CABLE" message on the screen?

- Check and see if the power cord is connected properly to the power outlet.
- Adjust the brightness and the contrast.
- If the display is in power saving mode, try moving the mouse or pressing any key on the keyboard to bring up the screen.
- Try to turn on the PC.
- This message appears when the signal from the PC (video card) is out of horizontal or vertical frequency range of the display. See the 'Specifications' section of this manual and configure your display again.
- This message appears when the signal cable between your PC and your display is not connected. Check the signal cable and try again.

Do you see a "OSD LOCKED" message on the screen?

- Do you see "OSD LOCKED" when you push MENU button?
- You can secure the current control settings, so that they cannot be inadvertently changed. You can unlock the OSD controls at any time by pushing the **MENU** button for several seconds: the message
 - "OSD UNLOCKED" will appear.

Display image is incorrect

- Display Position is incorrect.
- Press the AUTO/SET button to automatically adjust your display image to the ideal setting.
 If the results are unsatisfactory, adjust the image position using the H position and V position icon in the on screen display.
- On the screen background, vertical bars or stripes are visible.
- Press the AUTO/SET button to automatically adjust your display image to the ideal setting.
 If the results are unsatisfactory, decrease the vertical bars or stripes using the CLOCK icon in the on screen display.
- Any horizontal noise appearing in any image or characters are not clearly portrayed.
- Press the AUTO/SET button to automatically adjust your display image to the ideal setting.
 If the results are unsatisfactory, decrease the horizontal bars using the PHASE icon in the on screen display.
- Check Control Panel --> Display --> Settings and adjust the display to the recommended resolution or adjust the display image to the ideal setting. Set the color setting higher than 24 bits (true color).

Important

- Check Control Panel --> Display --> Settings and see if the frequency or the resolution were changed. If yes, readjust the video card to the recommend resolution.
- Reasons for Recommending Optimal Resolution: The aspect ratio is 16:10. If the input resolution is not 16:10 (for instance, 16:9, 5:4, 4:3), you might encounter problems such as blurred letters, blurry screen, cut-off screen display or tilted screen.
- The setting method can differ by computer and O/S (Operation System), and resolution mentioned above may not be supported by the video card performance. In this case, please ask to the computer or the video card manufacturer.

Troubleshooting

Display image is incorrect

- The screen color is mono or abnormal.
- Check if the signal cable is properly connected and use a screwdriver to fasten if necessary.
- Make sure the video card is properly inserted in the slot.
- Set the color setting higher than 24 bits (true color) at **Control Panel Settings**.
- The screen blinks.
- Check if the screen is set to interlace mode and if yes, change it to the recommend resolution.

Have you installed the display driver?

- Have you installed the display driver?
- Be sure to install the display driver from the display driver CD (or diskette) that comes with your display. Or, you can also download the driver from our web site: http://www.lge.com.
- Do you see an "Unrecognized monitor, Plug&Play (VESA DDC) monitor found" message?
- Make sure to check if the video card supports Plug&Play function.

Specifications

Display	19 inches (48.14 cm) Flat Panel Active matrix-TFT LCD				
	Anti-Glare coating				
	19 inches viewable				
	0.294 mm pixel pitch				
Sync Input	Horizontal Freq.	Analog: 30 - 83 kHz (Automatic)			
	Vertical Freq.	Digital: 30 - 83 kHz (Automatic) 56 - 75 Hz (Automatic)			
	Input Form	Separate TTL, Positive/Negative			
	input i oiiii	SOG (Sync On Green), Digital(HDCP)			
Video Input	Signal Input	15 pin D-Sub Connector			
ridoo iiipat	- 19	DVI - D connector (Digital)			
	Input Form	RGB Analog (0.7 Vp-p/ 75 ohm), Digital			
Resolution	Max	Analog : VESA 1440 x 900 @75 Hz			
		Digital: VESA 1440 x 900 @60 Hz			
	Recommend	VESA 1440 x 900 @60 Hz			
Plug&Play	DDC 2B				
Power	On Mode	: 36 W(Typ.)			
Consumption	Sleep Mode	≤ 1 W			
	Off Mode	≤ 1 W			
Dimensions &Weight	(1)	(Height) (2) (Height)			
	(Width)	(Depth) (Width) (Depth)			
	Width x Height x	•			
		es) x 43.60 cm(16.95 inches) x 23.74 cm(9.35 inches) es) x 29.56 cm(11.64 inches) x 9.82 cm(3.86 inches)			
	Net	5.7 kg (12.57 lbs)			
T11/11-1-1-1 D					
Tilt/Height Range	Tilt range Height range	0°~30° 121 mm / 4.76 inches			
Power Input	AC 100-240V~ 50/60Hz 0.8A				
Environmental	Operating Condition				
Conditions		10°C to 35 °C			
Conditions	Humidity	10 % to 80 % non-Condensing			
	Storage Conditions Temperature Humidity	s -20°C to 60 °C 5 % to 90 % non-Condensing			
Stand Base	Attached (O), Detached ()				
Power cord	Wall-outlet type or PC-outlet type				
	,,	••			

NOTE

■ Information in this document is subject to change without notice.



Preset Modes (Resolution)

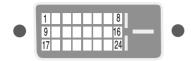
Disp	olay Modes (Resolution)	Horizontal Freq. (kHz)	Vertical Freq. (Hz)
1	640 x 350	31.469	70
2	720 x 400	31.468	70
3	640 x 480	31.469	60
4	640 x 480	37.500	75
5	800 x 600	37.879	60
6	800 x 600	46.875	75
7	832 x 624	49.725	75
8	1024 x 768	48.363	60
9	1024 x 768	60.123	75
10	1152 x 870	68.681	75
11	1152 x 900	61.805	65
12	1280 x 1024	63.981	60
13	1280 x 1024	79.976	75
14	1440 x 900	55.500	60
*15	1440 x 900	55.935	60
**16	1440 x 900	70.635	75

*Recommend Mode **Only Analog Mode

Indicator

MODE	LED Color
On Mode	blue
Sleep Mode	amber
Off Mode	Off

Signal Connector Pin Assignment



DVI-D Connector

Pin	Signal(DVI-D)
1	T. M. D. S. Data2-
2	T. M. D. S. Data2+
3	T. M. D. S. Data2/4 Shield
4	T. M. D. S. Data4-
5	T. M. D. S. Data4+
6	DDC Clock
7	DDC Data
8	Analog Vertical Sync.
9	T. M. D. S. Data1-
10	T. M. D. S. Data1+
11	T. M. D. S. Data1/3 Shield
12	T. M. D. S. Data3-
13	T. M. D. S. Data3+
14	+5V Power
15	Ground (return for +5V, H. Sync, and V. Sync.)

Pin	Signal(DVI-D)
16	Hot Plug Detect
17	T. M. D. S. Data0-
18	T. M. D. S. Data0+
19	T. M. D. S. Data0/5 Shield
20	T. M. D. S. Data5-
21	T. M. D. S. Data5+
22	T. M. D. S. Clock Shield
23	T. M. D. S. Clock+
24	T. M. D. S. Clock-

T. M. D. S. (Transition Minimized Differential Signaling)

This monitor satisfies the specifications of the Wall mount plate or the interchange device.

Place the monitor with its front facing downward on a soft cloth or a cushion.
 Gently hold Cover Hinge Cap with hands as shown in the picture. Then, lift it up and separate from the body.

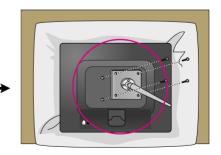


2. Separate the stand base by using a screwdriver.



3. Install the Wall mount plate.





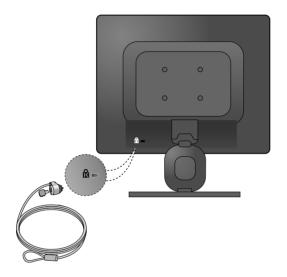
Wall mount plate(Separate purchase)

This is stand-type or wall mount type and is connectable with Wall mount plate.

Please refer to the installation guide for more details, which is provided when Wall mount plate is purchased.

Kensington Security Slot

Connected to a locking cable that can be purchased separately at most computer stores.



Digitally yours •••••····

